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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/808,556

03/25/2004

Shoichi Suzuki

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06/10/2008

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EXAMINER

WANG, KENT F

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

06/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/808,556	Applicant(s) SUZUKI ET AL.	
	Examiner KENT WANG	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/25/2008 has been entered.

Response to Amendment

2. The amendments, filed on 04/25/2008, have been entered and made of record. Claims 1-8 are pending.

Response to Arguments

3. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the interpretation of the original cited references.

The applicant argues that the citations to Takahashi and Shimizu are not understood to disclose or suggest a storage unit that stores a plurality of correction values which correspond to a plurality of persons' skin colors, respectively, a selection unit that selects one of the plurality of persons' skin colors, and a white balance processing unit that specifies a color temperature of a light source on the basis of a correction value corresponding to the person skin color selected by the selection unit, and an output signal of the imaging device

representing a parameter of the selected given chromatic color area, and conducts white balance processing in accordance with a white balance coefficient that corresponds to the specified color temperature of the light source, as recited by amended Claim 1.

The examiner understands the applicant's arguments but respectfully disagrees with the applicant's assessment. It is noted that Takahashi discloses an image pickup device comprising: an imaging device (Fig 3 shows spectral sensitivity distributions of a typical CCD sensor), a storage unit (a memory 30, 31, Fig 6) that stores a plurality of correction values which correspond to a plurality of persons' skin colors, respectively ([0138]), a selection unit (skin color candidate detection section 18, Fig 1) that selects one of the plurality of persons' skin colors ([0076]-[0077]), and a white balance processing unit (white balance correction apparatus 10, Fig 1) that specifies a color temperature of a light source (the color temperature of the photographing light source estimated by the light source color temperature estimation device 12) on the basis of a correction value (optimizes the coefficients α_1 and α_2) corresponding to the person skin color selected by said selection unit (18) ([0074] and [0076]-[0077]), and an output signal of the imaging device (input image signals, image signals generated from CCD, Fig 6) representing a parameter of the selected given chromatic color area (all the input image signals are multiplied by predetermined coefficients and the data thus obtained are compared with the blackbody locus of the detected skin color candidate pixels, which are considered to be in the vicinity of the skin color on the blackbody locus, as skin color candidate pixels, [0146]), and conducts white balance processing in accordance with a white balance coefficient (coefficients α_1 and α_2) that corresponds to the specified color temperature of the light source (the coefficient

optimization section 22 counts the number of gray candidate pixels detected by the gray candidate detection section 20, and optimizes the coefficients) (see step 220 of Fig 7 and [0074], [0076]-[0080], Takahashi). Shimizu discloses an instruction unit (monitor 30, Fig 2) that instructs a given chromatic color area on a photography screen (the monitor 30 may have a touch panel whose desired area may be touched by the operator to input settings and the pre-setting and one-push white balance wherein a particular area is designated in a captured image screen) (col. 2, lines 6-10, and col. 4, lines 32-56). It would have been obvious to one of ordinary skill in the art at the time this invention was made to choose the instruction unit as taught by Shimizu so as to enable the operator to finely adjust the color tone of a subject (see col.1, line 61 to col. 2, line 10, Shimizu).

And because corresponding method claim 8 has been amended in a similar manner as claim 1, this claim is rejected to be unpatentable for similar reasons.

With respect to dependent claims, 2-7, the examiner believes his office action of 11/28/2007 is proper and accurate. Applicant's arguments are not convincing.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-6, and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi, US 2003/0090750 in view of Shimizu, US 6,862,039.

Regarding claim 1, Takahashi discloses an image pickup device (a digital still camera, DSC; [0052]) comprising:

Art Unit: 2622

- an imaging device (Fig 3 shows spectral sensitivity distributions of a typical CCD sensor, see [0057]);
- a storage unit (a memory 30, 31, Fig 6) that stores a plurality of correction values which correspond to a plurality of persons' skin colors, respectively ([0138]);
- a selection unit (skin color candidate detection section 18, Fig 1) that selects one of the plurality of persons' skin colors ([0076]-[0077]); and
- a white balance processing unit (white balance correction apparatus 10, Fig 1) that specifies a color temperature of a light source (the color temperature of the photographing light source estimated by the light source color temperature estimation device 12) on the basis of a correction value (optimizes the coefficients α_1 and α_2) corresponding to the person skin color selected by said selection unit (18) ([0074] and [0076]-[0077]), and an output signal of the imaging device (input image signals, image signals generated from CCD, Fig 6) representing a parameter of the selected given chromatic color area (all the input image signals are multiplied by predetermined coefficients and the data thus obtained are compared with the blackbody locus of the detected skin color candidate pixels, which are considered to be in the vicinity of the skin color on the blackbody locus, as skin color candidate pixels, [0146]), and conducts white balance processing in accordance with a white balance coefficient (coefficients α_1 and α_2) that corresponds to the specified color temperature of the light source (the coefficient optimization section 22 counts the number of gray candidate pixels detected by the gray candidate detection section 20,

and optimizes the coefficients) (see step 220 of Fig 7 and [0074], [0076]-[0080], Takahashi).

Takahashi does not disclose an instruction unit that instructs the selection of a given chromatic color area on a photography screen.

Shimizu discloses an instruction unit (monitor 30, Fig 2) that instructs a given chromatic color area on a photography screen (the monitor 30 may have a touch panel whose desired area may be touched by the operator to input settings and the pre-setting and one-push white balance wherein a particular area is designated in a captured image screen) (col. 2, lines 6-10, and col. 4, lines 32-56).

It would have been obvious to one of ordinary skill in the art at the time this invention was made to choose the instruction unit as taught by Shimizu so as to enable the operator to finely adjust the color tone of a subject (see col.1, line 61 to col. 2, line 10, Shimizu).

Regarding claim 2, Takahashi discloses the white balance processing unit (10) calculates color evaluated values on the basis of the output signal of the image device (CCD sensor), and specifies the color temperature of the light source on the basis of a color evaluated value that is judged to be included in a predetermined chromatic color detection area among the calculated color evaluated values (the light source color temperature computation section 24 computes the estimated value of the color temperature of the photographing light source from the average color temperature of the group of skin color candidate pixels) ([0099] and [0100]) (also see [0018] for a predetermined chromatic color detection area).

Regarding claim 3, Takahashi discloses an image pickup device the chromatic color of the predetermined chromatic color detection area is a person's skin color ([0020] and [0076]).

Regarding claim 4, Takahashi discloses the chromatic color detection area is generated on the basis of the difference between a color evaluated value of a predetermined skin color which corresponds to the color temperature of the light source and a color evaluated value of an actually photographed person's skin color (provide a method for density correction which is a technique for detecting an area of skin color out of an image to obtain an appropriate print density; [0018]) (estimating a color temperature of a photographing light source with which the color image has been taken and correcting image signals of the color image based on the estimated color temperature; [0019]).

Regarding claim 5, Takahashi does not explicitly disclose an instruction unit comprises one of a touch panel and a visual line input. Shimizu discloses an instruction unit comprises one of a touch panel (monitor 30) and a visual line input (function selection button 36 and decision button 38) (see col. 3, lines 29-33 and col. 4, lines 32-55).

Regarding claim 6, Takahashi discloses an image pickup device wherein the predetermined chromatic color detection area is selected from a plurality of areas (provide a method for density correction which is a technique for detecting an area of skin color out of an image to obtain an appropriate print density based on information on the area of skin color, in other word the area is selected from a plurality of areas) ([0018]).

Regarding claim 8, this claim differs from claim 1 only in that the claim 1 is an apparatus claim whereas claim 8 is a method. Thus the method claim 8 is analyzed and rejected as previously discussed with respected to claim 1 above.

6. Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of Shimizu, and further in view of Wheeler, US 7,133,070.

Regarding claim 7, Takahashi as modified by Shimizu does not disclose the predetermined chromatic color detection area is selected on the basis of an input language that is inputted to the image pickup device by a photographer.

Wheeler discloses an input language (voice-actuated input) that is inputted to the image pickup device (a digital camera 300) by a photographer (the photofinisher) (see col. 13, line 51 to col. 14, line 6 and figure 8, Wheeler).

Takahashi, Shimizu, and Wheeler are analogous art because they are from the same field of endeavor for white balance processing in an image pickup device. At the time of the invention, it would have been obvious to a person of the ordinary skill in the art to use Wheeler's voice-actuated input in Takahashi and Shimizu's device for image processing. The suggestion/motivation would have been to enable the instruction unit to accept instructions by a variety of means (col. 11, lines 25-58, Wheeler).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Hoshuyama (US 2003/0001958), Ikeda et al. (US 2003/0169348), Fijimoto et al. (US 5,712,924), and Katoh et al. (US 5,267,031).
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Wang whose telephone number is 571-270-1703. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-270-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KW
May 27, 2008

*/Ngoc-Yen T. VU/
Supervisory Patent Examiner, Art Unit 2622*